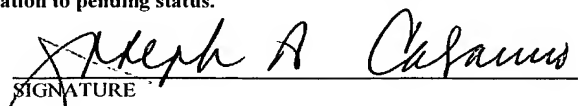


FORM PTO-1390 (REV 12-2001)		ATTORNEY DOCKET NUMBER 3401-4035
TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A FILING UNDER 35 U.S.C. 371		U.S. APPLICATION NO. (If known see 37 CFR 1.51) <div style="font-size: 1.5em; font-weight: bold;">10/070564</div>
INTERNATIONAL APPLICATION PCT/FR00/02486	INTERNATIONAL FILING DATE 8 September 2000 (08/09/2000)	PRIORITY DATE CLAIMED 10 September 1999 (10/09/1999)
TITLE OF INVENTION DEVICE FOR ACQUIRING STEREOSCOPIC IMAGES		
APPLICANT(S) FOR DO/EO/US Vincent COSTES		
<p>Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:</p> <ol style="list-style-type: none"> 1. <input checked="" type="checkbox"/> This is FIRST submission of items concerning a filing under 35 U.S.C. 371. 2. <input type="checkbox"/> This is SECOND or SUBSEQUENT submission of items concerning a filing under 35 U.S.C. 371. 3. <input checked="" type="checkbox"/> This express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) below. 4. <input checked="" type="checkbox"/> The US has been elected by the expiration of 19 months from the priority date (Article 31). 5. <input checked="" type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371(c)(2)) <ol style="list-style-type: none"> a. <input checked="" type="checkbox"/> is attached hereto (required only if not communicated by the International Bureau). b. <input type="checkbox"/> has been communicated by the International Bureau. c. <input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US). 6. <input checked="" type="checkbox"/> An English translation of the International application as filed (35 U.S.C. 371(c)(2)). <ol style="list-style-type: none"> a. <input checked="" type="checkbox"/> is attached hereto b. <input type="checkbox"/> has been previously submitted under 35 U.S.C. 154(d)(4). 7. <input checked="" type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3)) <ol style="list-style-type: none"> a. <input checked="" type="checkbox"/> are attached hereto (required only if not communicated by the International Bureau). b. <input type="checkbox"/> have been communicated by the International Bureau. c. <input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired d. <input type="checkbox"/> have not been made and will not be made. 8. <input checked="" type="checkbox"/> An English translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)). 9. <input type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)). 10. <input checked="" type="checkbox"/> An English translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)). <p>Items 11. to 20. below concern document(s) or information included.</p> <ol style="list-style-type: none"> 11. <input type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98 12. <input type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included. 13. <input checked="" type="checkbox"/> A FIRST preliminary amendment. 14. <input type="checkbox"/> A SECOND or SUBSEQUENT preliminary amendment. 15. <input type="checkbox"/> A substitute specification. 16. <input type="checkbox"/> A change of power of attorney and/or address letter. 17. <input type="checkbox"/> A computer-readable form of the sequence listing in accordance with PCT Rule 13ter 2 and 35 U.S.C. 1.821-1.825. 18. <input type="checkbox"/> A second copy of the published international application under 35 U.S.C. 154(d)(4). 19. <input type="checkbox"/> A second copy of the English translation of the international application under 35 U.S.C. 154(d)(4). 20. <input checked="" type="checkbox"/> Other items or Information: Copy of International Search Report, dated November 9, 2000 		

U.S. APPLICATION NO (if known, see 37 CFR 1.51) 10/070564		INTERNATIONAL APPLICATION NO PCT/FR00/02486		ATTORNEY'S DOCKET NO 3401-4035	
21. <input checked="" type="checkbox"/> The following fees are submitted: BASIC NATIONAL FEE (37 CFR 1.492 (a) (1) - (5)): Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2) paid to USPTO and International Search Report not prepared by the EPO or JPO \$1,040.00 International preliminary examination fee (37 CFR 1.482) not paid to USPTO but International Search Report prepared by the EPO or JPO ... \$890.00 International preliminary examination fee (37 CFR 1.482) not paid to USPTO but international search fee (37 CFR 1.445(a)(2) paid to USPTO \$740.00 International preliminary examination fee paid to USPTO (37 CFR 1.482) but all claims did not satisfy provisions of PCT Article 33 (1) - (4) \$710.00 International preliminary examination fee paid to USPTO (37 CFR 1.482) and all claims satisfied provisions of PCT Article 33(1) - (4) \$100.00 ENTER APPROPRIATE BASIC FEE AMOUNT =				CALCULATIONS PTO USE ONLY	
Surcharge of \$130 for furnishing the oath or declaration later than <input type="checkbox"/> 20 <input type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492(e)).				\$	
CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE	\$	
Total claims	7 - 20 =	0	X \$18.00	\$0	
Independent claims	2 - 3 =	0	X \$84.00	\$0	
MULTIPLE DEPENDENT CLAIM(S) (if applicable)			+ \$280.00	\$	
TOTAL OF ABOVE CALCULATIONS =				\$890.00	
Reduction of 1/2 for filing by small entity, if applicable. A Small Entity Statement must also be filed (Note 37 CFR 1.9, 1.27, 1.28).				\$	
SUBTOTAL =				\$890.00	
Processing fee of \$130.00 for furnishing the English translation later than <input type="checkbox"/> 20 <input type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492(f)).				\$	
TOTAL NATIONAL FEE =				\$890.00	
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property				\$	
TOTAL FEES ENCLOSED				\$890.00	
				Amount to be refunded:	\$
				charged	\$
a. <input checked="" type="checkbox"/> A check in the amount of \$890.00 to cover the above fees is enclosed. b. <input type="checkbox"/> Please charge my Deposit Account No. in the amount of \$ to cover the above fees. c. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 13-4500, Order No. 3401-4035. A duplicate copy of this sheet is enclosed. d. <input type="checkbox"/> Fees are to be charged to a credit card. WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.					
NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.					
SEND ALL CORRESPONDENCE TO: MORGAN & FINNEGAN, L.L.P. 345 Park Avenue New York, NY 10154-0053 (212) 758-4800 Telephone (212) 751-6849 Facsimile			Date: March 7, 2002 <div style="text-align: center;">  SIGNATURE Joseph A. Calvaruso NAME 28.287 REGISTRATION NO. </div>		

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE (DO/EO/US)

Applicants : Vincent COSTES
International Application No. : PCT/FR00/02486
5 U.S. Serial No. : To be assigned
U.S. Filing Date. : To be assigned
Group Art Unit : To be Assigned
Examiner : To be Assigned
10 For : DEVICE FOR ACQUIRING STEREOSCOPIC
IMAGES

PRELIMINARY AMENDMENT

Commissioner for Patents
Box PCT
15 Washington, D.C. 20231

Attention: DO/EO/US

S I R:

20 Preliminary to a substantive examination on the merits, please amend the
above identified application as follows:

Please amend the Specification and Claims as follows:

IN THE SPECIFICATION

25 At page 1, after the third full paragraph and between lines 10 and 11, please
insert

-- Document FR 1 393 577 describes a collimator device
for infrared radiation. That device comprises:
- a parabolic primary mirror;

- a hyperbolic secondary mirror positioned between the primary mirror M1 and its focus;

- an elliptical tertiary mirror disposed relative to the primary mirror on its side opposite from its side on which the secondary mirror is disposed; and

- a detector positioned at the focus of the tertiary mirror.

Such a device serves to concentrate a light beam received by the primary mirror parallel to its optical axis onto the detector. —

At page 1, after the fourth full paragraph and between lines 23 and 24, please insert

-- Document UK 2 158 261 describes a similar optical device, comprising a concave spherical primary mirror, a convex spherical secondary mirror positioned on the optical axis of the primary mirror, the primary mirror suitable for passing the light beams reflected by the secondary mirror so as to enable them to reach a catadioptric lens. Such a device enables an incident beam parallel to the optical axis to be split into two beams, these two beams corresponding respectively to the portions of the beam that pass on either side of two secondary half-mirrors.

Document EP 0 655 636 describes an aiming eyepiece device having an inlet pupil, a primary mirror, a secondary mirror, and a refractive lens. The elements are disposed in such

a manner as to transmit an image of the refractive lens towards
the inlet pupil. –

At page 1, after the seventh full paragraph and between lines 35 and 36, please
insert

5 -- Thus, the device proposed by the invention is an
observation device according to claim 1. –

At page 1 and extending to page 2 delete the paragraph beginning "Thus, the
device proposed by the invention is ..." and ending on page 2, line 19 with "directions
onto image acquisition means."

10 IN THE CLAIMS

1. (twice amended) An observation device comprising a primary mirror that is
parabolic or nearly parabolic, secondary reflection means situated between the
primary mirror and its focus, and tertiary reflection means which are disposed relative
to the primary mirror on its side opposite from the side on which the secondary
15 reflection means are disposed, the secondary reflection means reflecting light beams
that are received by the primary mirror, the primary mirror being suitable for passing
the light beams reflected in this way so as to enable them to reach the tertiary
reflection means, the device being characterized in that it further comprises image
acquisition means, and in that in order to acquire stereoscopic images, the secondary
20 reflection means comprise a mirror situated on the optical axis of the primary mirror
which reflects along two directions that are distinct from the optical axis of the
primary mirror, the light beams that are received by the primary mirror along two
directions of incidence that are also distinct from its optical axis, the tertiary reflection

means comprising means for focusing the light beams they receive along said two directions onto image acquisition means.

2. (twice amended) A device according to claim 1, characterized in that the
5 secondary mirror is adapted to reflect symmetrically about the optical axis the optical beams which reach the primary mirror along said two directions of incidence that are symmetrically about the optical axis.

3. (amended) A device according to claim 2, characterized in that the tertiary
10 reflection means comprise two plane mirrors placed symmetrically on either side of the direction of the optical axis of the primary mirror, together with two concave mirrors also disposed symmetrically about said direction, the plane mirrors reflecting onto the concave mirrors the light beams which come from the secondary mirror along the two directions that are distinct from the direction of the optical axis of the
15 primary mirror, the concave mirrors reflecting the beams they receive so as to focus them on the acquisition means.

4. (amended) A device according to claim 2, characterized in that the tertiary reflection means comprise two concave mirrors which are disposed symmetrically on
20 either side of the direction of the optical axis of the primary mirror and which reflect the light beams which arrive from the secondary mirror along the two directions distinct from the direction of the optical axis of the primary mirror, together with a plane mirror which is common to both paths and which is centered on the direction of the optical axis, extending perpendicularly to said direction, said plane mirror

reflecting the beams it receives onto the acquisition means situated on a focal plane common to both paths.

5 5. (amended) A device according to claim 2, characterized in that the primary mirror includes a central hole through which the secondary mirror reflects light.

6. (amended) A device according to claim 5, characterized in that the secondary mirror focuses two intermediate images at the level of the primary mirror, with the two light beams they reflect corresponding to the two observed directions of incidence.

10

7. (amended) A stereoscopic observation system comprising a satellite and stereoscopic image acquisition means, characterized in that said means comprise a device according to any preceding claim.

15

REMARKS

The above amendments have been made to incorporate the amendments made in the International Application PCT/FR00/02486 and to conform with United States claim drafting criteria, and eliminate character references. No new matter has been added to the application as a result of this amendment.

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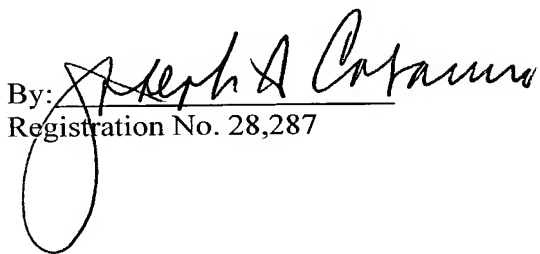
PATENT
Docket No. 3401-4035

The Commissioner is hereby authorized to charge any additional fees which may be required for this amendment, or credit any overpayment to Deposit Account No. 13-4500, Order No. 3401-4035.

Respectfully submitted,

MORGAN & FINNEGAN, L.L.P.

Dated: March 7, 2002

By: 
Registration No. 28,287

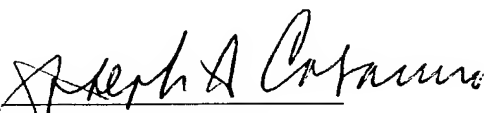
MORGAN & FINNEGAN, L.L.P.
345 Park Avenue
New York, New York 10154
Tel. No. (212)758-4800
Fax No. (212)751-6849

The Commissioner is hereby authorized to charge any additional fees which
may be required for this amendment, or credit any overpayment to Deposit Account
No. 13-4500, Order No. 3401-4035.

Respectfully submitted,

MORGAN & FINNEGAN, L.L.P.

Dated: March 7, 2002

By: 
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345 Park Avenue
New York, New York 10154
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Fax No. (212)751-6849

APPENDIX A
(Claim with changes shown)

5 1[/. (twice amended) An observation device comprising a primary mirror
[(1)] that is parabolic or nearly parabolic, secondary reflection means [(2)] situated
between the primary mirror [(1)] and its focus, and tertiary reflection means [(4a, 4b;
5a, 5b; 7a, 7b; 8)] which are disposed relative to the primary mirror [(1)] on its side
opposite from the side on which the secondary reflection means [(2)] are disposed, the
10 secondary reflection means [(2)] reflecting light beams that are received by the
primary mirror [(1)], the primary mirror [(1)] being suitable for passing the light
beams reflected in this way so as to enable them to reach the tertiary reflection means
[(4a, 4b; 5a, 5b; 7a, 7b; 8)], the device being characterized in that [in order to acquire
stereoscopic images, the secondary reflection means comprise a mirror (2)] it further
15 comprises image acquisition means [(6a, 6b; 9)], and in that in order to acquire
stereoscopic images, the secondary reflection means comprise a mirror [(2)] situated
on the optical axis of the primary mirror [(1)] which reflects along two directions that
are distinct from the optical axis of the primary mirror [(1)], the light beams that are
received by the primary mirror [(1)] along two [given] directions of incidence that are
20 also distinct from its optical axis, the tertiary reflection means [(4a, 4b; 5a, 5b; 7a, 7b;
8)] comprising means for focusing the light beams they receive along said two
directions onto image acquisition means [(6a, 6b; 9)].

25 2[/. (twice amended) A device according to claim 1, characterized in that the
[two directions of incidence that it observes are symmetrical about the optical axis,
and in that the light] secondary mirror [(2)] is adapted to reflect symmetrically about

the optical axis the optical beams which reach the primary mirror [(1)] along said two directions of incidence that are [reflected by the secondary mirror (2)] symmetrically about the optical axis.

5 3[/]. (amended) A device according to claim 2, characterized in that the tertiary reflection means comprise two plane mirrors [(4a, 4b)] placed symmetrically on either side of the direction of the optical axis of the primary mirror [(1)], together with two concave mirrors [(5a, 5b)] also disposed symmetrically about said direction, the plane mirrors [(4a, 4b)] reflecting onto the concave mirrors [(5a, 5b)] the light
10 beams which come from the secondary mirror [(2)] along the two directions that are distinct from the direction of the optical axis of the primary mirror [(1)], the concave mirrors reflecting the beams they receive so as to focus them on the acquisition means [(6a, 6b)].

15 4[/]. (amended) A device according to claim 2, characterized in that the tertiary reflection means comprise two concave mirrors [(7a, 7b)] which are disposed symmetrically on either side of the direction of the optical axis of the primary mirror [(1)] and which reflect the light beams which arrive from the secondary mirror [(2)] along the two directions distinct from the direction of the optical axis of the primary
20 mirror [(1)], together with a plane mirror [(8)] which is common to both paths and which is centered on the direction of the optical axis, extending perpendicularly to said direction, said plane mirror [(8)] reflecting the beams it receives onto the acquisition means situated on a focal plane common to both paths.

5[7]. (amended) A device according to claim 2, characterized in that the primary mirror [(1)] includes a central hole through which the secondary mirror [(2)] reflects light.

5 6[7]. (amended) A device according to claim 5, characterized in that the secondary mirror [(2)] focuses two intermediate images at the level of the primary mirror [(1)], with the two light beams they reflect corresponding to the two observed directions of incidence.

10 7[7]. (amended) A stereoscopic observation system comprising a satellite and stereoscopic image acquisition means, characterized in that said means comprise a device according to any preceding claim.

ART 34 AMDT

A DEVICE FOR ACQUIRING STEREOSCOPIC IMAGES

The present invention relates to a device for acquiring stereoscopic images.

It is recalled that stereoscopic images are obtained by viewing the same scene from two different angles of incidence.

An object of the invention is to propose a device for acquiring stereoscopic images that is particularly simple, compact, and adapted to very good angular resolution.

Document FR 1 393 577 describes a collimator device for infrared radiation. That device comprises:

- a parabolic primary mirror;
- a hyperbolic secondary mirror positioned between the primary mirror M1 and its focus;
- an elliptical tertiary mirror disposed relative to the primary mirror on its side opposite from its side on which the secondary mirror is disposed; and
- a detector positioned at the focus of the tertiary mirror.

Such a device serves to concentrate a light beam received by the primary mirror parallel to its optical axis onto the detector.

DE 4 307 831 discloses binocular telescopic structures making it possible to observe remote scenes and comprising:

- a parabolic mirror;
- secondary mirrors situated on either side of the optical axis of the primary mirror, between said primary mirror and its focal plane; and
- tertiary reflection means disposed relative to the primary mirror on its side opposite from the side on which the secondary mirror is disposed, and in which the primary mirror is adapted to pass the light beams reflected by the secondary mirrors so as to enable them to reach the tertiary reflection means.

ATT 34 ADD

Document UK 2 158 261 describes a similar optical device, comprising a concave spherical primary mirror, a convex spherical secondary mirror positioned on the optical axis of the primary mirror, the primary mirror being suitable for passing the light beams reflected by the secondary mirror so as to enable them to reach a catadioptric lens. Such a device enables an incident beam parallel to the optical axis to be split into two beams, these two beams corresponding respectively to the portions of the beam that pass on either side of two secondary half-mirrors.

Document EP 0 655 636 describes an aiming eyepiece device having an inlet pupil, a primary mirror, a secondary mirror, and a refractive lens. The elements are disposed in such a manner as to transmit an image of the refractive lens towards the inlet pupil.

Such a telescope is intended for observing objects that are very far away (an application to astronomy, for example) and is not suitable in any way for acquiring stereoscopic images.

The invention proposes an optical device which makes it possible to observe the same scene with different angles of incidence.

In particular, the device proposed by the invention is advantageously applicable in acquiring a stereoscopic image by means of a satellite moving over the earth and observing the same scene at two different instants, and thus at two different angles.

Thus, the device proposed by the invention is an observation device according to claim 1.

The invention advantageously also has the various following characteristics, taken singly or in any technically feasible combination:

- the two directions of incidence that it observes are symmetrical about the optical axis, and the light beams which reach the primary mirror along said two

ART 34 ANDT

ART 34 ANDT

ART 34 ANDT

intercepts the beams reflected by said parabolic mirror 1 before they reach its focus.

5 The primary mirror 1 is pieced by a central hole passing intermediate images 3a and 3b which are disposed symmetrically on either side of its center.

The primary and secondary mirrors 1 and 2 are dimensioned in such a manner that the beams which are incident on said primary mirror 1 with respective angles θ_1 and $-\theta_1$ relative to the optical axis of said primary
10 mirror 1 are focused respectively on the central hole.

The device also has two plane mirrors 4a, 4b which are disposed symmetrically about the optical axis of the primary mirror 1, being situated on the side of said primary mirror 1 that is opposite from the side where the
15 secondary mirror 2 is situated.

The two plane mirrors 4a and 4b lie respectively on the paths of the beams which, after being reflected by the convex mirror 2, pass through the mirror 1 via the intermediate images 3a and 3b.

20 These plane mirrors 4a and 4b reflect the beams they receive from the images 3a and 3b onto two concave mirrors 5a and 5b which are conical and which reflect the beams they receive onto two focus planes 6a and 6b where charge coupled detector strips or matrices are located,
25 for example.

As will have been understood, such a device makes it possible in simple manner to acquire two images which correspond to the same scene as viewed at two different angles of incidence.

30 Numerous variants of the embodiment shown in Figure 1 can be envisaged.

In particular, depending on the shape and the dimensions of the volume in which the rear portion of the telescope is to be housed, it is naturally possible to
35 act on the orientations of the plane mirrors 4a and 4b and on the orientations of the concave mirrors 5a and 5b.

ART 34 AMDT

CLAIMS

1/ An observation device comprising a primary mirror (1) that is parabolic or nearly parabolic, secondary reflection means (2) situated between the primary mirror (1) and its focus, and tertiary reflection means (4a, 4b; 5a, 5b; 7a, 7b; 8) which are disposed relative to the primary mirror (1) on its side opposite from the side on which the secondary reflection means (2) are disposed, the secondary reflection means (2) reflecting light beams that are received by the primary mirror (1), the primary mirror (1) being suitable for passing the light beams reflected in this way so as to enable them to reach the tertiary reflection means (4a, 4b; 5a, 5b; 7a, 7b; 8), the device being characterized in that it further comprises image acquisition means (6a, 6b; 9), and in that in order to acquire stereoscopic images, the secondary reflection means comprise a mirror (2) situated on the optical axis of the primary mirror (1) which reflects along two directions that are distinct from the optical axis of the primary mirror (1), the light beams that are received by the primary mirror (1) along two directions of incidence that are also distinct from its optical axis, the tertiary reflection means (4a, 4b; 5a, 5b; 7a, 7b; 8) comprising means for focusing the light beams they receive along said two directions onto the image acquisition means (6a, 6b; 9).

2/ A device according to claim 1, characterized in that the secondary mirror (2) is adapted to reflect symmetrically about the optical axis the optical beams which reach the primary mirror (1) along two directions of incidence that are symmetrical about the optical axis.

3/ A device according to claim 2, characterized in that the tertiary reflection means comprise two plane mirrors (4a, 4b) placed symmetrically on either side of the direction of the optical axis of the primary mirror (1), together with two concave mirrors (5a, 5b) also disposed

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(12) DEMANDE INTERNATIONALE PUBLIÉE EN VERTU DU TRAITÉ DE COOPÉRATION
EN MATIÈRE DE BREVETS (PCT)(19) Organisation Mondiale de la Propriété
Intellectuelle
Bureau international(43) Date de la publication internationale
22 mars 2001 (22.03.2001)

PCT

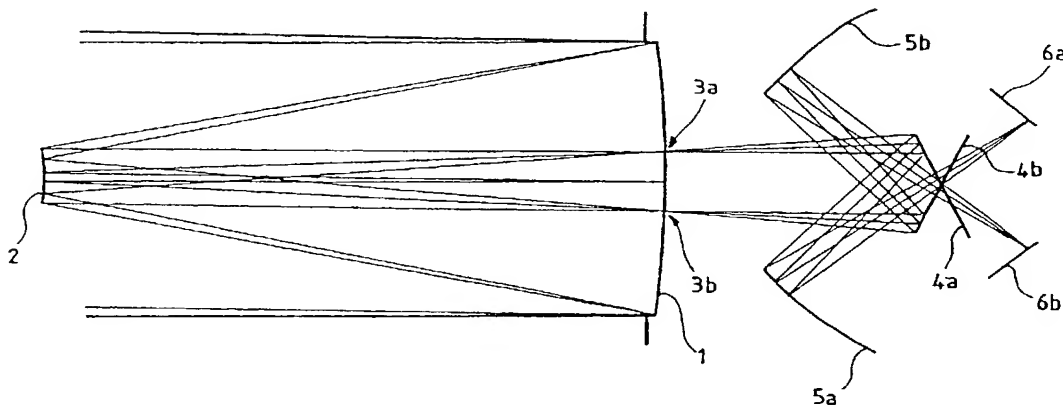
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- (21) Numéro de la demande internationale:
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8 septembre 2000 (08.09.2000)
- (25) Langue de dépôt: français
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99/11355 10 septembre 1999 (10 09 1999) FR
- (71) Déposant (pour tous les États désignés sauf US): CENTRE NATIONAL D'ETUDES SPATIALES [FR/FR]; 2, place Maurice Quentin, F-75001 Paris (FR).
- (72) Inventeur; et
(75) Inventeur/Déposant (pour US seulement): COSTES, Vincent [FR/FR]; 19, rue Emile Littré, F-31850 Montrabe (FR).
- (74) Mandataires: MARTIN, Jean-Jacques etc.; Cabinet Regimbeau, 26, avenue Kléber, F-75116 Paris (FR).
- (81) États désignés (national): IN, JP, US
- (84) États désignés (régional): brevet européen (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).

[Suite sur la page suivante]

(54) Title: DEVICE FOR ACQUIRING STEREOSCOPIC IMAGES

(54) Titre: DISPOSITIF POUR L'ACQUISITION D'IMAGES STEREOSCOPIQUES



(57) Abstract: The invention concerns a device for acquiring stereoscopic images comprising a primary mirror (1) or a near-parabolic mirror, a secondary mirror (2) located on the primary mirror optical axis between said primary mirror and its focal point, tertiary reflecting means (4a, 4b, 5a, 5b, 7a, 7b, 8) arranged relative to the primary mirror on the side opposite the secondary mirror reflecting along two directions different from that of the primary mirror optical axis the optical beams received by the primary mirror along two specific directions of incidence, the primary mirror being capable of being traversed by the tertiary beams, said tertiary reflecting means comprising means for focusing the optical beams which they receive along said two directions onto image acquisition means.

(57) Abrégé: Dispositif pour l'acquisition d'images stéréoscopiques qui comporte un miroir primaire (1) ou proche de la parabole, un miroir secondaire (2) situé sur l'axe optique du miroir primaire entre ledit miroir primaire et son foyer, des moyens de réflexion tertiaires (4a, 4b, 5a, 5b, 7a, 7b, 8) qui sont disposés par rapport au miroir primaire du côté opposé au miroir secondaire, le miroir secondaire réfléchissant selon deux directions distinctes de celle de l'axe optique du miroir primaire les faisceaux optiques qui sont reçus par le miroir primaire selon deux directions d'incidence données, le miroir primaire étant apte à être traversé par les faisceaux optiques ainsi réfléchis pour leur permettre d'atteindre les moyens de réflexion tertiaires, lesdits moyens de réflexion tertiaires comportant des moyens pour focaliser les faisceaux optiques qu'ils reçoivent selon ces deux directions sur des moyens d'acquisition d'images.

1/3

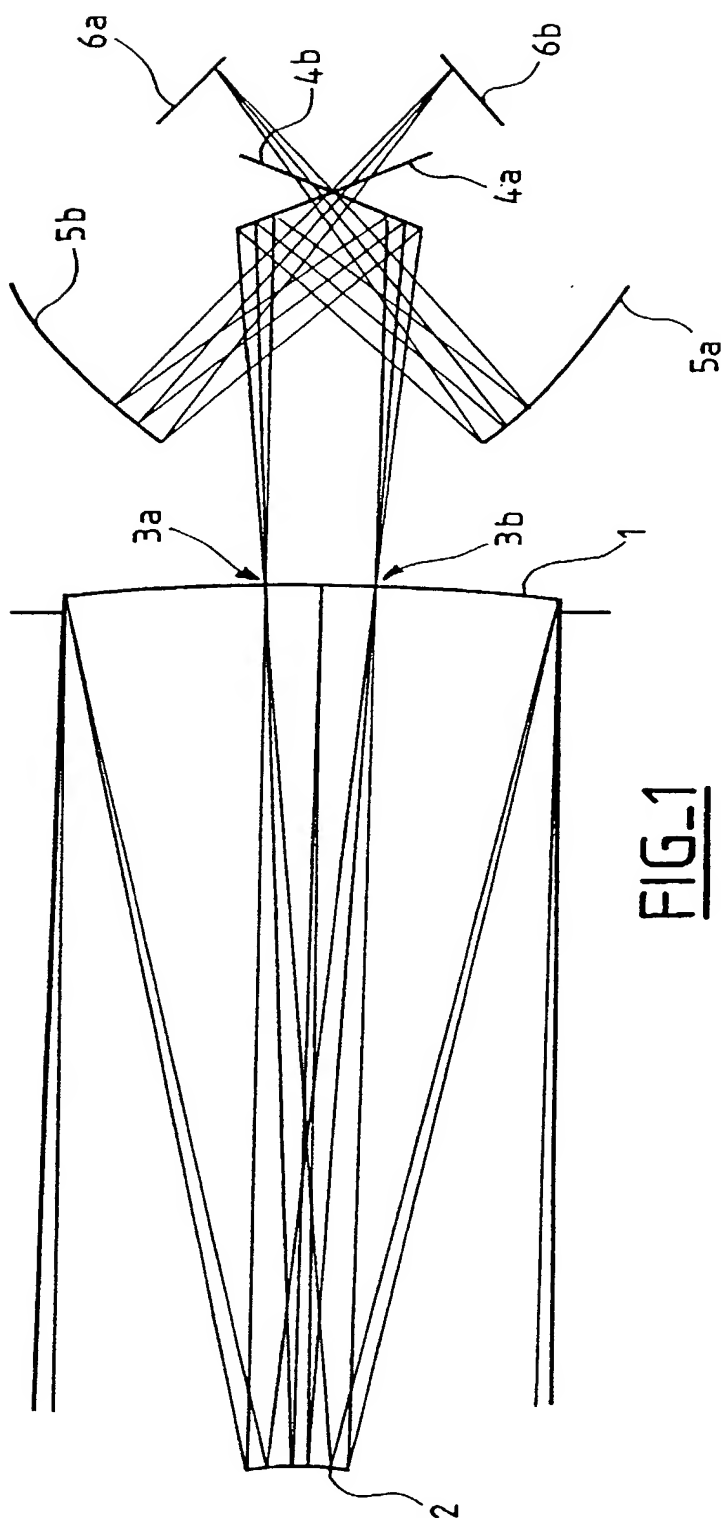


FIG. 1

2/3

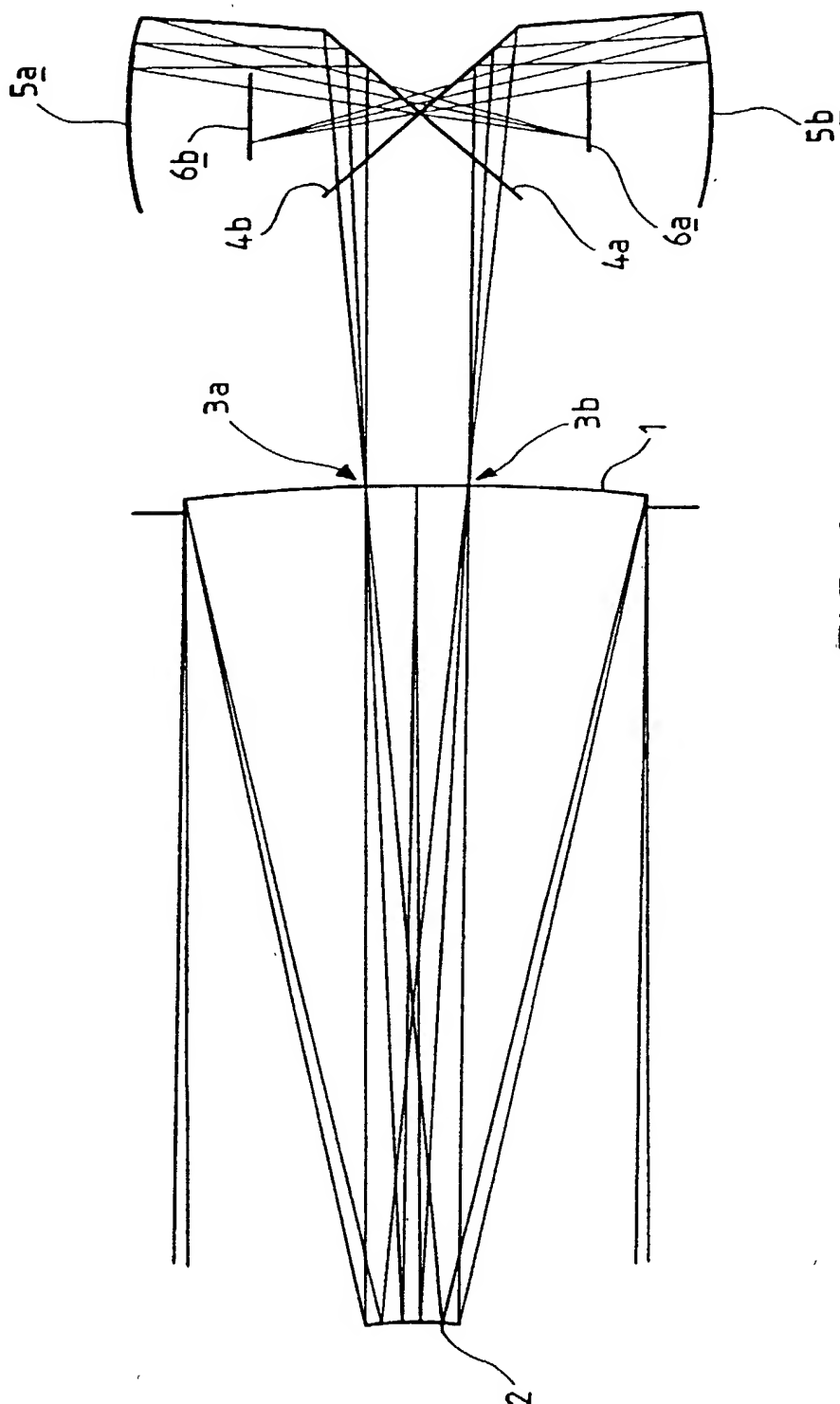
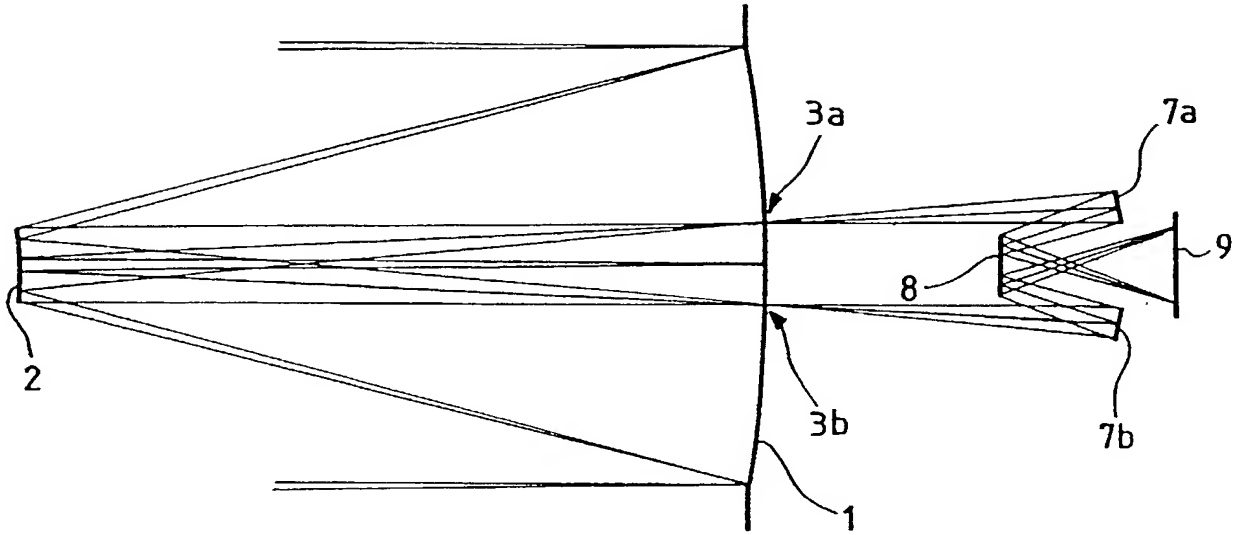
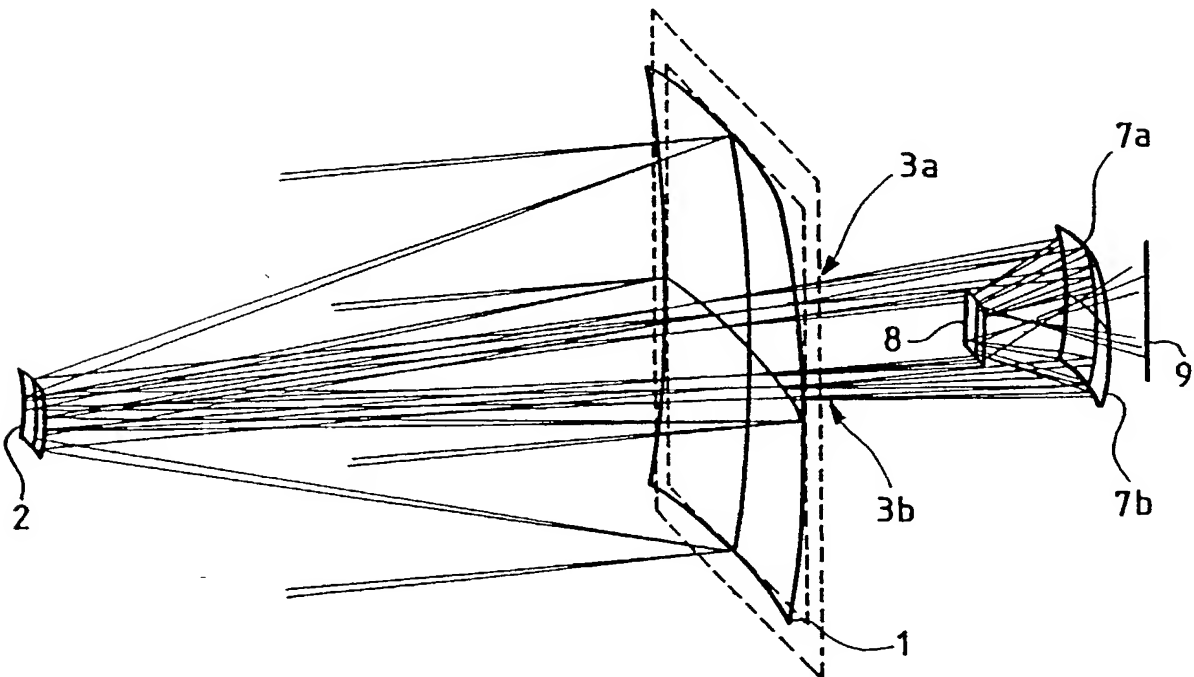


FIG-2

3/3



FIG_3



FIG_4

Attorney Docket No.
3401-4035

DECLARATION AND POWER OF ATTORNEY

As a below named inventor, I hereby declare that: my residence, post office address and citizenship are as stated below next to my name; I believe I am the original, first, and sole inventor (if only one name is listed below) or an original, first, and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

DEVICE FOR ACQUIRING STEREOSCOPIC IMAGES

the specification of which O is attached and/or ~~X~~ was filed on **SEPTEMBER 8, 2000** as ~~United States Application Serial No.~~

of PCT International Application No. **PCT/FR00/02486** and was amended on (if applicable).

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above. I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR § 1.56.

1 hereby claim foreign priority benefits under 35 U.S.C. § 119(a)-(d) or § 365(b) of any foreign application(s) for patent or inventor's certificate or § 365(a) of any PCT International application(s) designating at least one country other than the United States, listed below and have also identified below, any foreign application(s) for patent or inventor's certificate, or any PCT International application(s) having a filing date before that of the application(s) of which priority is claimed:

Country	Application Number	Date of Filing	Priority Claimed Under 35 U.S.C. 119	
FRANCE	99/11355	10 SEPTEMBER 1999	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO
			<input type="checkbox"/> YES	<input type="checkbox"/> NO

I hereby claim the benefit under 35 U.S.C. § 119(e) of any United States provisional application(s) listed below:

Application Number	Date of Filing

I hereby claim the benefit under 35 U.S.C. § 120 of any United States applications) or § 365(c) of any PCT International applications) designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application(s) in the manner provided by the first paragraph of 35 U.S.C. § 112, I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR § 1.56 which became available between the filing date of the prior application(s) and the national or PCT International filing date of this application:

Application Number	Date of Filing	Status (Patented, Pending , Abandoned)
PCT/FR00/02486	08 SEPTEMBER 2000	Pending


I hereby appoint the following attorney and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office

John C. Vassil (Reg. No. 19,098), Alfred P. Ewert (Reg. No. 19,887), David H. Pfeffer (Reg. No. 19,825), Harry C. Marcus (Reg. No. 22,390), Robert E. Paulson (Reg. No. 21,046), Stephen R. Smith (Reg. No. 22,615), Kurt E. Richter (Reg. No. 24,052), J. Robert Dailey (Reg. No. 27,434), Eugene Moroz (Reg. No. 25,237), John F. Sweeney (Reg. No. 27,471), Arnold I. Rady (Reg. No. 26,601), Christopher A. Hughes (Reg. No. 26,914), William S. Feiler (Reg. No. 26,728), Joseph A. Calvaruso (Reg. No. 28,287), James W. Gould (Reg. No. 28,859), Richard C. Komson (Reg. No. 27,943), Israel Blum (Reg. No. 26,710), Bartholomew Verdirame (Reg. No. 28,483), Maria C.H. Lin (Reg. No. 29,323), Joseph A. DeGirolamo (Reg. No. 28,595), Michael P. Dougherty (Reg. No. 32,730), Seth J. Atlas (Reg. No. 32,454), Andrew M. Riddies (Reg. No. 31,657), Bruce D. DeRenzi (Reg. No. 33,676), Mark J. Abate (Reg. No. 32,527), John T. Gallagher (Reg. No. 35,516), Steven F. Meyer (Reg. No. 35,613) and Kenneth H. Sonnenfeld (Reg. No. 33,285), Tony V. Pezzano (Reg. No. 38,271), Andrea L. Wayda (Reg. No. 43,979), Walter G. Hanchuk (Reg. No. 35,179), John W. Osborne (Reg. No. 36,231), and Robert K. Goethals (Reg. No. 36,813) of Morgan & Finnegan, L.L.P. whose address is: 345 Park Avenue, New York, New York, 10154; and Michael S. Marcus (Reg. No. 31,727), and John E. Hoel (Reg. No. 26,279), of MORGAN & FINNEGAN L.L.P. whose address is: 1775 Eye Street, Suite 400, Washington, D.C. 20006.

My attorneys with full power of substitution and revocation, to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith.

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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

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Listing of Inventors Continued on Page 2 hereof. ☐ Yes ☒ No

MORGAN & FINNEGAN